Annual Report 2015

Deff

Contents

From the chair >

The final few objectives in the previous strategy were ticked off in 2015. When the Steering Committee was set up in 2013, we drew up an ambitious list of priority areas where new activities were needed to implement the strategy: "Libraries as catalyst for developing Denmark as an innovative society". In 2015, the Steering Committee was able to ascertain that most of the objectives had been achieved.

Børge Obel
Chairperson, DEFF
Steering Committee

Against this background, and because a number of the projects approved in 2013 and 2014 had not yet been completed, the Steering Committee decided not to invite applications for major projects in 2015. Instead, the Committee opted to launch special initiatives in support of the remaining priority areas: upper-secondary schools: Open Access, data management and improved dissemination of research results to the business community.

Denmark has an ambitious Open Access strategy that requires support. The transition to Open Access has, therefore, been a top priority. DEFF has supported the development of the Open Access indicator, which is designed to keep the sector informed about progress.

Open Access makes research publications as widely available as possible. In the long term, it will also help disseminate academic knowledge to the business world, and so we lent our support to an innovative,

research-based proposal on ways to package scientific knowledge for business.

International co-operation is more important than ever. Sharing experiences helps ensure that the activities we initiate are in line with international progress.

Knowledge Exchange provides a unique opportunity for Danish specialists to work with relevant international bodies. At the moment, Knowledge Exchange is focusing on Open Access and research data, and on helping the partner organisations share knowledge and experience, e.g. about licence negotiations.

In 2015, DEFF and the Danish e-Infrastructure Cooperation (DeIC) launched a historic data-management initiative. The aim is for Denmark's research-data infrastructure and technology to be on a par with the best in the world within a few years. The work is now well underway, and I feel sure that we are well placed to realise our ambition.

The final priority to receive special attention in 2015 was the upper-secondary schools' library service. Students on upper-secondary courses find themselves working with academic data for the first time, which requires specific skills on the part of both the students and their teachers. We are running skills enhancement projects to ensure the students learn good habits from the start. Hopefully, these endeavours will have a lasting impact on learning, research and innovation throughout the country. Library services in upper-secondary schools will remain a priority for the next few years.

Strategy and licences

As we came close to the full implementation of the previous strategy, the time was ripe to draw up a new one. In 2015, the Steering Committee put considerable effort into a new strategy for 2016–19. The Committee drew up a framework comprising four strategic pointers and five specific focus areas. At the beginning of March

2016, our many stakeholders provided input into specific initiatives in each area. This provides a solid foundation for our work over the next few years. Involving the sector in drawing up the strategy allowed DEFF to focus its efforts where they are most needed.

This participatory model of decision-making is also known from the licensing area, in which the new licence networks and the institutions' involvement have provided a strong sectoral mandate for the negotiations. In 2015, we adapted the network structure for the licence negotiations to ensure that it better reflected the diversity of the consortium. We expect this collaborative model to continue and be refined.

In the licensing area, the Secretariat and the Steering Committee came to the conclusion in 2015 that, based on survey data, satisfaction with the negotiations had significantly increased among the institutions compared to the previous year.

Notwithstanding this improvement, the Secretariat and the institutions both pointed out that there is room for improvement in the way results are communicated, in licensing statistics and in invoicing. As a consequence, in 2015 we began developing a new licence-management system: LISA. We expect it to be fully implemented by the end of the second quarter of 2016. LISA will give us a better administrative overview and negotiating position, and improve invoicing and communication regarding licences for the relevant institutions.

Finally, I would like to take this opportunity to thank all of the institutions for their co-operation, commitment and contributions, as well as the many project participants who worked so hard to implement our strategy. Well done!

Børge Obel
Chairperson, DEFF Steering Committee

"In the licensing area, the Secretariat and the Steering Committee came to the conclusion in 2015 that, based on survey data, satisfaction with the negotiations had significantly increased among the institutions compared to the previous year."

Børge Obel
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Grants and priorities

In 2015, the Steering Committee decided to prioritise upper-secondary school libraries, Open Access and making knowledge available to the business community.

DEFF

Denmark's Electronic Research Library (DEFF) is an organisational and technological collaboration involving academic, research and educational (ARE) libraries in Denmark.

It is jointly funded by the Ministry of Higher Education and Science, the Ministry of Children, Education and Gender Equality and the Ministry of Culture, and is based in the Agency for Culture and Palaces.

DEFF's purpose is to promote the development of a network of electronic libraries that make information resources available to users in a simple and consistent manner. DEFF provides funding for joint development projects and infrastructure development, and manages the joint procurement of licences. It also negotiates and enters into contracts for electronic licences on behalf of ARE libraries.

It was also the year in which the implementation of the National Strategy on Data Management really gathered momentum. This work is done by the National Forum for Research Data Management, which held its start-up meeting in the summer of 2015 and is co-funded by DeIC. The priorities and projects are described below.
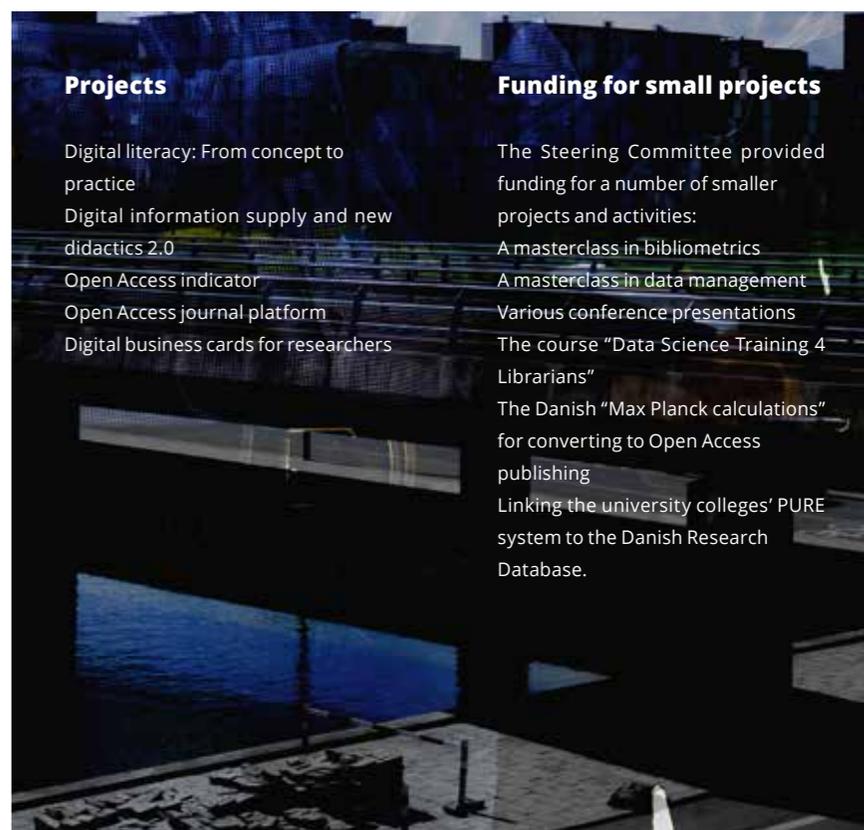
Projects

Digital literacy: From concept to practice
Digital information supply and new didactics 2.0
Open Access indicator
Open Access journal platform
Digital business cards for researchers

Funding for small projects

The Steering Committee provided funding for a number of smaller projects and activities:
A masterclass in bibliometrics
A masterclass in data management
Various conference presentations
The course "Data Science Training 4 Librarians"
The Danish "Max Planck calculations" for converting to Open Access publishing
Linking the university colleges' PURE system to the Danish Research Database.

Upper-secondary schools >

Two projects targeting secondary schools were launched with DEFF funding in 2015.

Secondary schools are often overlooked

In 2015, DEFF funded two pilot projects on library solutions for upper-secondary schools. This will remain a focus area under the new strategy for 2016–2019. According to Anne-Birgitte Rasmussen, chairperson of Danish Upper Secondaries and member of the DEFF Steering Committee, the biggest challenges facing upper-secondary schools are accessing research-based knowledge and sourcing expert assistance for information searches.

Anne-Birgitte Rasmussen
Chairperson of Danish Upper Secondaries and member of the DEFF Steering Committee

"Secondary schools are often overlooked. At one end of the spectrum, we have public libraries, but much of the knowledge that our students need – and that they are interested in – isn't available in them. One reason for this is that the librarians in them are trained for very different roles. At the other end, we have the research libraries, which are unknown and inaccessible to upper-secondary students. The research libraries are not designed for this kind of use –and nor should they be. You can't expect upper-secondary students to be capable of exploiting the full potential of research libraries without expert assistance," says Rasmussen.

To meet this challenge, Rasmussen says that we have to consider how we might serve upper-secondary schools better in the future. "Nobody has the perfect solution right now. That's why DEFF is continuing to focus on this issue, so that together we can find a solution. In 2015, we funded two projects that, in their own ways, are trying to arrive at a better library solution for upper-secondary schools."

According to Rasmussen, upper-secondary school pupils love to search for and immerse themselves in literature, knowledge and data on a host of different topics. Schools need to support and nurture this hunger for knowledge as much as possible, but the teachers have not been trained to teach pupils how to search for information. "Most upper secondaries don't have full-time librarians. There is a gap there that DEFF can help fill."

"The two projects we launched in 2015 constitute a constructive starting point from which to reach an even broader audience in the future. Our vision is to provide evidence-based recommendations and tangible solutions to improve upper-secondary schools – and, more importantly, provide their students with a new skill set in the future," says Anne-Birgitte Rasmussen.

Digital literacy: From concept to practice

Collaboration between upper-secondary schools on generating practice-based knowledge.

Digital literacy can be defined as the awareness of and ability to navigate academically, ethically and socially in digital contexts. The project "Digital Literacy: From concept to practice" integrates IT learning and literacy into the curriculum at 11 upper-secondary schools. The objective is to improve the pupils' digital literacy.

In autumn 2015, the Danish Evaluation Institute published a report on IT in secondary education, which emphasised the importance of focusing on the literacy aspects of IT. The study shows that students generally have good technical skills, but lack competencies relating to ethical issues in using digital media and the ability to critique media sources and information.[1]

The project deals with precisely these issues, and seeks to develop practical, teaching-related solutions. Courses that integrate the didactic use of IT and digital media help boost digital literacy. Five projects have been started, all of which are related to specific teaching contexts and subjects. The idea is to find effective ways of translating the concept of digital literacy into practice.

For example, one project encourages teachers and librarians in seven schools to work together to define and implement digital literacy programmes as part of academic studies. In this sense, digital literacy is not merely an add-on to established fields of study but integrated into the students' studies alongside other learning objectives.

The participating institutions cover a range of types and parts of the country in the hope that awareness of digital literacy will spread organically throughout the sector. Knowledge and experience from the DEFF project bank is also published on deff.dk and emu.dk.

[1] Danish Evaluation Institute, 2015: IT in youth education

Facts about "Digital Literacy: From concept to practice"

The project "Digital Literacy: From concept to practice" has a total budget of DKK 1.273 million, of which DEFF provides DKK 500.000.

The project is managed by Aarhus Statsgymnasium and also involves upper-secondary schools and technical and vocational institutions in Nærum, Rødovre, Taastrup, Ordrup, Borupgaard, Gladsaxe, Brøndby, Odder, Frederiksberg and Horsens.

A final report will be published early in 2017. The results will be published on emu.dk and the DEFF project bank at deff.dk.

Digital information supply and new didactics: Phase 2

Does access to e-resources lead to higher grades and better upper-secondary study programmes?

In recent years, Danish upper-secondary school students have been subjected to ever-tougher demands. Not only to specialise more and more, but also to acquaint themselves with academic methods – e.g. information searches and evaluation of sources – earlier than ever, especially for the major assignments in their second and third years.

As digitisation gathers pace, so does the need for digital learning resources in the upper-secondary sector, but there has been no corresponding increase in the supply of research-based articles, e-books and reference works.

Greater access to quality-assured, scientifically based e-resources can, however, support new forms of learning. It also makes students better prepared for the transition to higher education.

These are precisely the issues addressed by the project "Digital information supply and new didactics in upper-secondary schools". Over a two-year trial period, the project will provide high-school students with access to a wealth of resources, primarily in English.

Needs were identified during phase one, and a critical mass of e-resources will now be tested in eight upper-secondary schools in Funen with approximately 1,000 students. The project measures impact by tracking students' grades. Follow-up research will be conducted by Professor Kirsten Drotner of the University of Southern Denmark to draw up recommendations for the sector. In this way, the project will provide both practical and evidence-based results that will make Danish upper-secondary school students better prepared for academic study.

Facts about "Digital information supply and new didactics in upper-secondary schools"

The project has a total budget of DKK 2,153,820, of which DEFF contributes DKK 935,280.

The project will run until mid-2018, when impact measurements and research-based recommendations will be published.

The project is managed by the University Library of Southern Denmark. The co-owners consist of Danish Upper Secondaries, the Danish Association of Upper Secondary Schools, the Department for the Study of Culture at the University of Southern Denmark, Odense Central Library, the UC Southern Denmark Library and Braintrust.dk.

The eight schools involved are Middelfart, Munkensdam, Nordfyns, Tornbjerg and Vestfyns upper-secondary schools, Odense Cathedral School and Southern Denmark College.

Why Open Access? ⊙

Open Access has been an academic and strategic focus for DEFF for many years. In 2015, the Steering Committee launched two special initiatives designed to support the national transition to Open Access: An Open Access indicator and a National Open Access platform.

Open Access indicator

What is the extent of Open Access publishing in academia – and what might it be in the future?

Denmark has a national Open Access strategy. The objective is that by 2022, there will be unrestricted access to all peer-reviewed journal articles published from 2021 onwards by Danish research institutions funded by public and/or private foundations. The Open Access indicator is an offshoot of the work of the National Steering Committee for Open Access. The objective is to support implementation of the strategy by monitoring progress on an annual basis and extrapolating how far we can progress.

The indicator takes into account both green Open Access via university repositories, and gold Open Access in dedicated Open Access journals. However, so-called Hybrid Open Access does not count unless the article is deposited in a university repository. From next year, the indicator will also count Open Access parallel publishing through recognised academic/international repositories such as arXiv.

The indicator measures Open Access publication both for individual universities in their main academic fields and for Denmark as a whole. As well as monitoring actual Open Access, the indicator also shows the concept's potential – how far we can progress if we make the most of all of the opportunities for green Open Access parallel publishing via repositories.

The results from the Open Access indicator will be published via the Danish Research Database at forskningsdatabasen.dk, which has just been relaunched in a greatly expanded version, including new functions, upgraded search features and up-to-date research topics.

Facts: Open Access indicator

DEFF is funding the development and operation of the Open Access indicator to the tune of DKK 1,114,000 in 2015 and 2016.

The Open Access indicator is operated by the Technical University of Denmark.

See the indicator's results at www.forskningsdatabasen.dk.

National Open Access platform

To help achieve the goal of Open Access for all Danish scientific journals, there is a need for cost-effective technical solutions that will support digital publishing and help make Open Access available to all.

This is the purpose of the Open Journal System (OJS) platform, which is an open-source solution devised by the Public Knowledge Project.

In line with this development, the National Open Access platform will bring together existing OJS servers in a joint hybrid server park at the Royal Library. The project is about technology, about creating and operating a joint journal platform, but it is also about marketing, about spreading awareness of Open Access and the options for converting existing journals to the system.

Converted journals are available at tidsskrift.dk. They consist of both academic and research journals.

"There is a need for cost-effective technical solutions that will support digital publishing and help make Open Access available to all."

Facts: National Open Access platform

DEFF is funding the development and operation of the national Open Access platform with DKK 2,535,400 in 2015 and 2016.

The Open Access indicator is operated by the Royal Library.
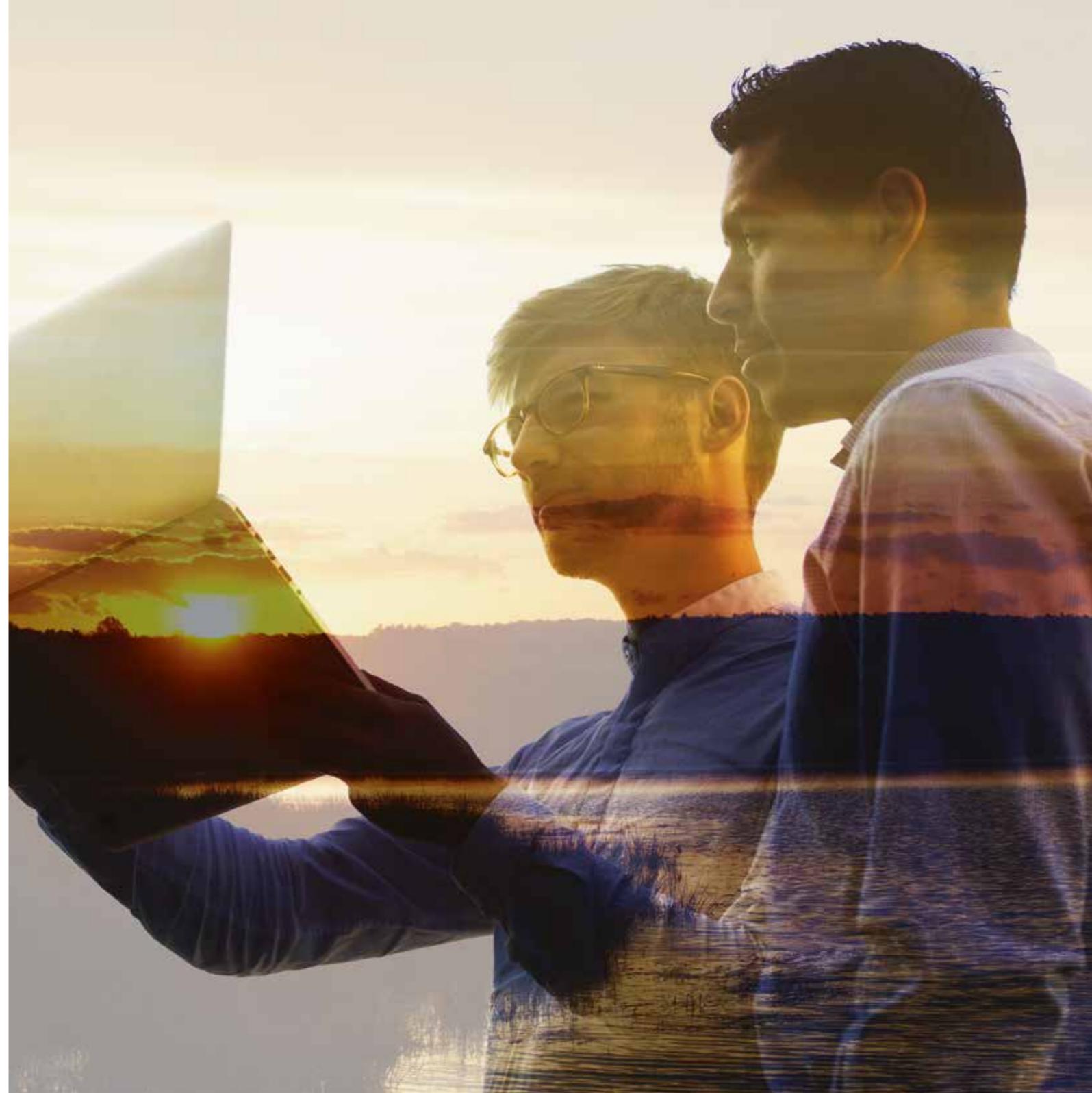
Data-management initiative

DEFF, DeIC, the Danish universities and repositories have drawn up a national strategy for research data management. The "National Forum for Research Data Management", established in 2015, is a three-year project to implement the national strategy in practice.

Processing research data: Convergence not uniformity

The remit of the National Forum for Research Data Management is to facilitate initiatives that fall under the auspices of the universities and are designed to promote research involving more than one institution.

The members of the National Forum for Research Data Management are university and repository staff who work with research data on a day-to-day basis. It is chaired by Professor Henrik Pedersen of the Department of Mathematics and Computer Science at SDU. Last autumn, an interview with Henrik Pedersen, regarding the launch of the National Forum on 25-26 August 2015, was published on deff.dk. In it, Pedersen says:

"At the kick-off meeting, I wanted to establish an understanding of the common ground. The various institutions have different characteristics. The first meeting conveyed a basic understanding of our remit and activities.

Some of these activities are very basic, but essential to our work. We are looking at meeting formats, templates for data-management policies, and processes for launching major projects. In other words, we have to lay the tracks on which the train will run.

Other proposals are about establishing an overview of what's going on elsewhere. Our preliminary activities consist of a survey of experiences and previous studies – in Denmark and abroad. For example, countries such as Finland, the USA and Britain have far greater experience of working with national data-management systems."

Convergence – not uniformity
What tangible results can we expect from the work of the Forum?
"We have to ensure that when two researchers from different institutions are working together, the collaboration isn't hampered by different policies for research data. Uniformity may not be on the agenda, but convergence will remove obstacles to good inter-institutional research."

"We have to ensure that when two researchers from different institutions are working together, the collaboration isn't hampered by different policies for research data."

> "Our 'Train the Trainers' programme is designed to ensure that skills and knowledge are deeply embedded in the institutions. Over time, this should lead to a situation whereby the range of skills within the National Forum is reflected locally at the institutions."

How will you ensure that the Forum maintains contact with the people who work with data and the data users?

"In different ways. Remember that the National Forum consists of representatives of all those who have an interest in data management in Denmark. Our 'Train the Trainers' programme is designed to ensure that skills and knowledge are deeply embedded in the institutions. Over time, this should lead to a situation whereby the range of skills within the National Forum is reflected locally at the institutions."

Dual responsibility for success

"Overall, you might say that there is a dual responsibility, shared between the Forum and the local institutions and users. The local institutions need to play their part, including tendering for projects when they think that they have relevant expertise. Conversely, we in the National Forum have to listen to the local experts. As chair, it is my responsibility to take note of who is not on board when the train begins to roll."

Since this interview was published, an application deadline has been announced for the next round of applications for project funding. The Forum has called for proposals for projects capable of fostering a completely new, modified or expanded data-management infrastructure or supporting the use of existing infrastructure.

The interview was conducted on 28 September 2015 and is available in full on deff.dk.

The National Forum for Research Data Management

The purpose of the National Forum for Research Data Management is to promote academic data management initiatives in the universities and at a level close to the academics and researchers, and to link them together in a national and international collaboration that focuses on interdisciplinary knowledge sharing, projects and infrastructure.

The Forum is a three-year project set up by DeIC and DEFF. It has a total budget of DKK 17.75 million over three years. DEFF provided DKK 9.5 million and the institutions provided DKK 8.25 million.
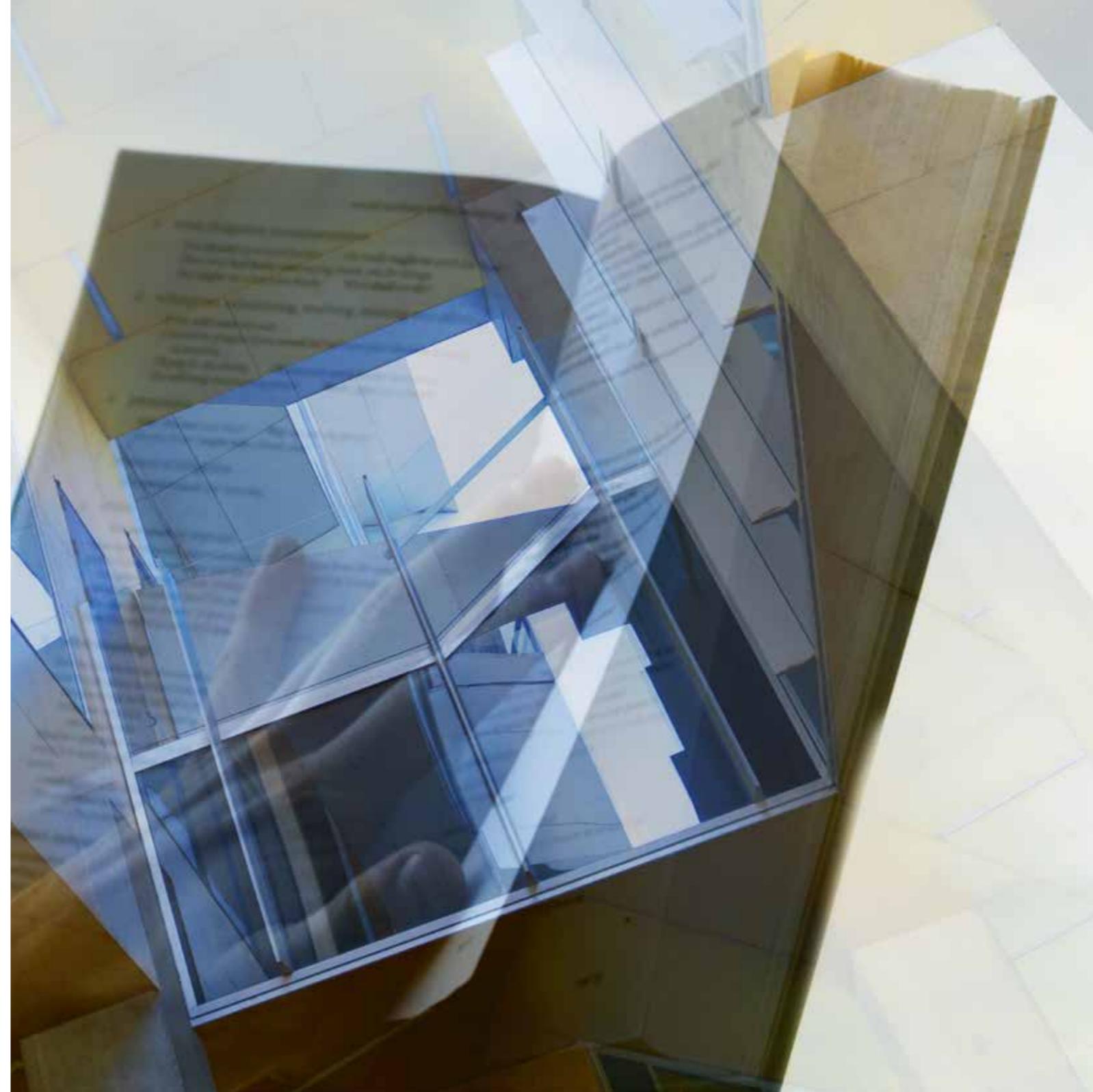
Communicating research to business >

The Danish universities and university colleges produce knowledge that is useful to many small and medium-sized enterprises and public bodies. It is an ongoing challenge to develop solutions that will increase access to research-based knowledge. In 2015, DEFF funded a bridge-building project.

Digital business card as a basis for knowledge transfer to business and industry

Matching experience-based knowledge to business needs.

At present, research is amassed in large databases, based on the principle that it is available to the scientists who need it. The problem is that people outside of academia are unfamiliar with these databases. Employees in small and medium-sized enterprises (SMEs), for example, are often completely unaware of their existence.

This detracts from the potential for innovation – not because knowledge is unavailable, but because it is not readily accessible. This project seeks to communicate research by specifically targeting SMEs. This will help the universities generate economic value together with business and the rest of society.

The project "Digital business card as a basis for knowledge transfer to business and industry" aims to make it easier, faster and more fun for companies to incorporate research into the knowledge base that underpins their day-to-day operations. The digital business cards provide clear, entertaining, specific and personal portraits of researchers and their work.

The project creates opportunities for SMEs to more easily identify and access relevant research, and provides new and inventive ways of doing so – text messages, personal contacts, videos, statistics or news cuttings. It depends on what individual researchers choose to make available via the PURE database.

The researchers do not have to develop new products or key in new entries in yet another user interface – the content of the digital business card is retrieved from existing data sources. This means that the form and scope of the digital business card will differ greatly depending on how much material the various researchers have made available.

The challenge of sharing the universities' research with business and industry is not a new one. This project, however, tackles the problem differently from previous attempts in four distinct ways:

1. It is specifically targeted at SMEs, and solutions are developed based on their situation and needs. The SMEs themselves

"This project seeks to communicate research by specifically targeting SMEs. This will help the universities generate economic value together with business and the rest of society."

"The digital business card can be used on a wide variety of platforms, e.g. smartphones, computers, in browsers and by e-mail. The idea is that they can be published online, and yet still exist in physical space."

set the framework for the design and functionality. Previous projects have usually had the general public as their target group.

2. It seeks generic solutions, i.e. not based solely on personal collaborations. Previous projects were often costly and time-consuming, as they were based on personal collaboration between a particular researcher and certain companies. The digital business card project shares research more broadly with the business community.

3. It aims to make research more experience-based. The project experiments with forms of research presentation. Entertaining presentation promotes in-depth understanding and leads to more practical applications.

4. It is highly flexible. The digital business card can be used on a wide variety of platforms, e.g. smartphones, computers, in browsers and by e-mail. The idea is that they can be published online, and yet still exist in physical space.

The physical form of the business card in particular presents opportunities for innovation. For example, the cards could take the form of wallpaper in social areas in company premises, or be handed out at exhibitions or networking events.

Facts about the project "Digital business card as a basis for knowledge transfer to business and industry"

This project has a total budget of DKK 360,246, of which DEFF provides DKK 330,246.

The project is expected to be completed by the end of 2016.

Licence negotiations

Its terms of reference stipulate that licence negotiations are one of DEFF's core tasks. This is an area that is constantly evolving, both internally and externally. The Steering Committee will place particular strategic focus on negotiations during the period 2016–19.

Focus: Involvement and optimisation
In 2015, the Secretariat adjusted its organisational setup to ensure greater involvement of all of the institutions and inclusion of their input in the licence negotiations. This approach will be continued in the future.

In 2015, the Secretariat carried out two satisfaction surveys among the institutions. The first, in February, measured satisfaction with the licensing process and the outcome of negotiations in 2014. The second study, conducted at the end of the year, examined the same satisfaction parameters for 2015.

The results of the first survey showed that the institutions wanted better technical support and would like to be more involved in the licensing negotiations. As a consequence, the Secretariat sought input from the institutions, and incorporated it into its approach when formulating the objectives for the year's negotiations. The result was a better process all round. The Secretariat will maintain this level of involvement in the future.

2015: Satisfaction on the right path
The 2015 survey showed that satisfaction with service and negotiation results had increased on all parameters compared to 2014. However, the survey also highlighted areas in which the consortium would like to see improvements. Invoicing and communication were the areas in which satisfaction had increased least.

New licence-management system
The work on licence negotiations – including communication with the institutions, registration of data for usage and invoicing – is part of the licence-management system. However, the 2014 satisfaction surveys made it clear that the IT support system was not equipped to meet the needs and demands of users and employees. As a consequence, in 2015 work began on the development of a new licence-management system: LISA. It is expected that the new system will be operational by the end of the second quarter in 2016. It will, among other things, improve invoicing and communication with the relevant institutions.

> "The 2015 survey showed that satisfaction with service and negotiation results had increased on all parameters compared to 2014."

Involvement of the institutions – a negotiation model that works
In 2013, when the agreement with Elsevier was up for renegotiation, the institutions played a more active part in the discussions. This model has since been used for all major agreements. In 2015, all of the big negotiations were conducted in close collaboration with representatives of the consortium institutions.

This collaboration makes it possible to make use of the collective licensing and negotiating expertise of both the institutions and the Secretariat. There is no doubt that this approach, combined with professionalised pre-negotiation work and a clear negotiating strategy, made a positive contribution to the annual results.

"The collaborative model meant that the negotiating team was able to benefit from the close links between licensing technique, negotiation practice and knowledge of the institutions' situations and priorities. All of the signatories to the agreements benefitted from this, especially in the focus areas of: Economy and Open Access."
– *Per Lindblad Johansen, Library Director, Aarhus University*

DEFF Online 2015
DEFF Online is an annual professional conference for publishers and libraries. The 2015 session took up where the 2014 session left off, and maintained the focus on professional presentations. In addition to publishers' presentations on their latest products, the programme included more specialist keynote speakers and workshops on the session theme of Open Access. The contributions, including from commercial publishers, dealt with various aspects of Open Access in relation to scientific knowledge.

DEFF Online 2015 had the highest number of participants to date, with 128 institutions and 32 publishers.

New licence network
We use the licence network to systematise professional exchanges and advice from the consortium institutions. In 2015, we reformed the set-up of the network in order to better reflect the service to the institutions.

We set up two new licence networks in spring 2015: Licence Network for Business Academies and University Colleges (LEAP) and Licence Network for Youth Education (LUU). The new networks – which replace the previous Licence Group for Education Libraries (LUB) – strengthen opportunities for institution-specific, professional dialogue and debate. In autumn 2015, they proved their relevance as platforms for collective professional decision-making on licences.

"I expect that the close collaboration between these networks and DEFF can help us focus on the specific issues that arise in relation to licences, and that we can otherwise learn from each other across the university colleges and business academies."
– *Kristine Ager Moses Hinrichsen, former chairperson of LUB, currently chairperson of LEAP*

International partnerships

DEFF is engaged in a number of international partnerships designed to make progress at national level. For example, the national work on Open Access and the processing of research data goes hand-in-hand with the work of the international project Knowledge Exchange.

Key data for DEFF licences 2015

Number of institutions serviced in 2015: 170
Including 40 under the auspices of DEFF commercial activities
Revenue: DKK 196 million
Total contracts* in 2015: 146 covering 81 publishers

In 2015, 70 contracts covering 45 publishers were renegotiated

The biggest negotiations of the year were with Oxford University Press, Thomson Reuters, Taylor & Francis and Wiley. These were carried out by the DEFF negotiating team, as mandated by the preparatory group, which consisted of representatives of the consortium's primary customers.

Agreements with Monday Morning, Ovid, Project MUSE and Science were negotiated by the Secretariat with technical input from volunteer reference groups from the libraries. Other agreements were negotiated by the Secretariat with ad hoc input from the institutions concerned.

*The majority of DEFF agreements are what are known as umbrella agreements involving 1–30 different products within the same category (e-journals, databases, reference books or e-books, etc.) from the same publisher. This means that a single agreement can represent anything from one journal to many different journal packages from the same publisher.

Knowledge Exchange
A decade of expert collaboration

Ten years ago, DEFF helped found Knowledge Exchange, an international partnership focusing on exchanges of knowledge and experience between national experts, in areas such as digital infrastructure and the development of information and communication technologies for higher education and research.

Knowledge Exchange currently consists of institutions from Denmark, the UK, Finland, the Netherlands and Germany. Knowledge Exchange reached its tenth anniversary in 2015. In December, the Steering Committee participated in the celebrations at a major strategy conference in Helsinki. The representatives from the various countries formulated a new vision for the partnership, which seeks to "enable open scholarship by supporting an information infrastructure on an international level", as well as a joint wish list and an action plan for future work. The discussions in Helsinki have been published in the form of the report "Pathways to Open Scholarship". Following the conference, several of the themes raised have been promoted by the Dutch Presidency of the EU.

The Knowledge Exchange partnership puts Danish experts in touch with colleagues abroad, allowing them to extend their professional networks.

Research data and ORCID

In 2015, Knowledge Exchange launched an ambitious programme – drawn up in line with corresponding Danish work – on

Benefits of DEFF's participation in Knowledge Exchange

- DEFF receives and develops international knowledge on its prioritised topics. This knowledge serves as a source of inspiration and helps DEFF's many stakeholders develop.
- Co-ordinating of activities allows a better international allocation of responsibilities and reduces duplication of work
- DEFF adjusts its strategy and activities based on its partners' strategies and activities
- DEFF achieves significant international influence, e.g. within the EU
- Together, the five partners have far more influence than DEFF would have in isolation. For example, Knowledge Exchange submitted a series of recommendations on copyright to the European Commission.

Vision for Knowledge Exchange: "to enable open scholarship by supporting an information infrastructure on an international level."

skills and knowledge sharing in research data management. This enabled Danish data-management experts to interact with international colleagues.

In June, Knowledge Exchange held a workshop on digital research identifiers, e.g. ORCID. In the workshop, national experts exchanged experiences and discussed possible future scenarios for digital researcher IDs. The discussions have been published as a report, which is available on deff.dk.

Monitoring Open Access
In May, Knowledge Exchange held a workshop on the monitoring of Open Access. The five Knowledge Exchange member states – plus Norway, Belgium and Spain – shared methods, tools and processes aimed at optimising the monitoring of Open Access. This led to work on the international standardisation of Open Access evaluations. The Danish Open Access indicator served as the Danish example.

DEFF supports implementation of the ORCID researcher ID in Denmark, via the project Research Documentation and Communication. For updates and set-up help, see ORCID.dk.

DEFF has facilitated monitoring of Open Access in Denmark via the Open Access indicator project. The indicator is available online at forskningsdatabasen.dk

Collaboration on Open Access policies
By bringing together a range of national experts, Knowledge Exchange has explored the relationship between Open Access policies and services in Germany, the UK, Finland, the Netherlands and Denmark – and at EU level, too. Based on this, Knowledge Exchange published the report "Putting Down Roots".

The report shows a high degree of convergence between Open Access policies in the Knowledge Exchange countries. It also identifies a range of services on which the successful implementation of Open Access depends, and formulates general guidelines for decision-makers designed to ensure the financial security of Open Access operators and services. The report is available at deff.dk.

In 2015, DEFF signed the following two statements:

COAR & SPARC: "Statement against Elsevier's sharing policy"

LERU: "League of European Research Universities' statement on Open Access"

SCOAP3
Open Access – a positive example
2015 was a very good year for innovative Open Access collaboration. DEFF was among the first institutions to show its willingness to support CERN with the establishment of SCOAP3.

SCOAP3 stands for Sponsoring Consortium for Open Access Publishing in Particle Physics. It is also a prime example of international collaboration as the way forward in terms of increasing Open Access to scientific publications. In 2015, the number of Open Access articles on high-energy physics published via the collaboration doubled. New members in 2015 included Iceland, Taiwan, Australia and Yale University.

Since the launch, thousands of libraries, research institutions and procurement consortia from 47 countries have worked together on the publication of 8,752 scientific articles on high-energy physics in Open Access journals. The SCOAP3 countries share the costs incurred by the publishers at no expense to researchers, and publishers are cutting subscription rates for the participants.

In November 2013, DEFF signed a Memorandum of Understanding with CERN on SCOAP3, making Denmark the first country in the world to do so. In 2007, DEFF was the first signatory to an Expression of Interest that paved the way for this collaboration. The DEFF Steering Committee has decided to extend its SCOAP3 membership for the next three years.

"In 2015, the number of Open Access articles on high-energy physics published via the collaboration doubled."

Accounts

General operations, Section 21.11.11.20 of the National Budget

DEFF general operations, etc.	
Revenue	DKK
National Budget	8,900,000.00
DEFF Online	191,230.71
Expenditure	
Staff	-5,310,386.06
Operations	-1,472,639.62
Other external costs	-830,207.50
Overheads to the Culture Agency	-1,357,200.00
Total	120,797.53

* Underspend due to vacancies. The Ministry of Finance's restriction on capital dispositions reduced the appropriation under Section 21.11.11.20 of the National Budget by DKK 100,000.

Grant from Section 21.31.03.60 of the National Budget

DEFF grant	
Revenue	DKK
National Budget	10,600,000.00
Reversal from previous projects	3,076,641.00
Expenditure	
Grant-based spending	-13,676,641.00
Total	0

* The Ministry of Finance's restriction on capital dispositions reduced the appropriation under Section 21.11.11.20 of the National Budget by DKK 100,000.

Commercial activities, DEFF IV, Section 21.11.11.90 of the National Budget

DEFF IV – Accounts 2015	2014
Revenue	DKK
Contributions to admin costs	1,009,144.51
Fees	81,168.85
Expenditure	
Staff	-500,055.43
LM information	-499,428.14
Overhead	-210,600.00
Operations	-20,839.20
Total	-140,609.41

* Overspend due to lower fee income and higher wage costs. This was covered by carrying over a surplus of almost DKK 275,000 from 2014.

Subsidy, Section 21.31.03.60

DEFF licences	2014
Revenue	DKK
Sales	196,418,614.02
Of which DEFF IV	31,653,649.00
Expenditure	
Purchases	196,418,614.02
Of which DEFF IV	31,653,649.00
Total	0

DEFF Knowledge Exchange, Section 21.11.11.30 of the National Budget

DEFF Knowledge Exchange	
Revenue	DKK
National Budget	300,000,00
Expenditure	
KE Secretariat	-300,000,00
Total	0

* This expense will be posted under general operations when the appropriation from the National Budget runs out in financial year 2016.

DEFF Steering Committee

The members of the DEFF Steering Committee are appointed by the three ministries that co-own the project: the Ministry of Children, Education and Gender Equality; the Ministry of Higher Education and Science; the Ministry of Culture.

The Steering Committee consists of:
- Centre Director and Professor Børge Obel, Aarhus School of Business, Aarhus University (Chair)
- Professor Marianne Lykke, Department of Communication, Aalborg University
- Mogens Sandfær, Head of Bibliometrics & Data Management, Technical University of Denmark
- Library Director Peter Flodin, Metropolitan University College
- Deputy Director and Library Director Kira Stine Hansen, the Royal Library and Copenhagen University Library
- Svend Larsen, State & University Library
- Anne-Birgitte Rasmussen, Principal, Copenhagen Open Upper-secondary School
- Carsten Topholt Larsen, Deputy Director, Palaces and Culture Agency